

IN THE CLAIMS

Claim 1 (currently amended): A method for cutting integrated circuit packages, comprising:

providing an integrated circuit package; and

cutting through the integrated circuit package to be singulated with a water jet to access an interior portion of the integrated circuit package.

Claim 2 (original): The method of Claim 1, wherein cutting the integrated circuit package with a water jet comprises:

positioning the integrated circuit package adjacent a water jet;

pressurizing the water jet such that the water jet is operable to cut the integrated circuit package; and

cutting the integrated circuit package to a predetermined shape.

Claim 3 (original): The method of Claim 1, wherein providing an integrated circuit package comprises providing a ball grid array package.

Claim 4 (original): The method of Claim 1, wherein cutting the integrated circuit package with a water jet comprises cutting the integrated circuit package with a water jet having a plurality of abrasive particles.

Claim 5 (original): The method of Claim 2, wherein pressurizing the water jet comprises pressurizing the water jet to a pressure between approximately 500 psi and approximately 2500 psi.

Claim 6 (original): The method of Claim 1, wherein cutting the integrated circuit package with a water jet comprises cutting a plurality of integrated circuit packages by directing the water jet along at least one of a plurality of edges of the integrated circuit packages.

Claim 7 (original): The method of Claim 1, wherein cutting the integrated circuit package with a water jet comprises cutting the integrated circuit package such that an interior portion of the integrated circuit package is accessible for testing.

Claim 8 (currently amended): A method for cutting integrated circuit packages, comprising:

providing an integrated circuit package;

positioning the integrated circuit package adjacent a water jet;

pressurizing the water jet such that the water jet is operable to cut through the integrated circuit package to access an interior portion of the integrated circuit package to be singulated; and

cutting the integrated circuit package to a desired shape.

Claim 9 (original): The method of Claim 8, wherein providing an integrated circuit package comprises providing a ball grid array package.

Claim 10 (original): The method of Claim 8, wherein cutting the integrated circuit package to a desired shape comprises cutting the integrated circuit package with a water jet having a plurality of abrasive particles.

Claim 11 (original): The method of Claim 8, wherein pressurizing the water jet comprises pressurizing the water jet to a pressure between approximately 500 psi and approximately 2500 psi.

Claim 12 (original): The method of Claim 8, wherein cutting the integrated circuit package to a desired shape comprises cutting a plurality of integrated circuit packages by directing the water jet along at least one of a plurality of edges of the integrated circuit packages.

Claim 13 (original): The method of Claim 8, wherein cutting the integrated circuit package to a desired shape comprises cutting the integrated circuit package such that an interior portion of the integrated circuit package is accessible for testing.

Claim 14 (withdrawn): A system for cutting an integrated circuit package, comprising:

a computer operable to generate a predetermined cut pattern for the integrated circuit; and

a water jet machining system operatively coupled to the computer and operable to generate a water jet with a suitable pressure for cutting the integrated circuit package into the predetermined cut pattern.

Claim 15 (withdrawn): The system of Claim 14, wherein the water jet machining system comprises:

a water supply;

an intensifier pump operatively coupled to the water supply and operable to pump water through a conduit;

a hydraulic unit operatively coupled to the intensifier pump;

an attenuator operatively coupled to the water and operable to dampen pressure fluctuations of the water in the conduit;

a valve coupled to the conduit and operable to control the flow of the water; and

a nozzle coupled to conduit operable to direct the water along the predetermined cut pattern.

Claim 16 (withdrawn): The system of Claim 14, wherein the integrated circuit package is a ball grid array package.

Claim 17 (withdrawn): The system of Claim 14, wherein the water jet comprises a plurality of abrasive particles.

Claim 18 (withdrawn): The system of Claim 14, wherein the suitable pressure is between approximately 500 psi and approximately 2500 psi.

Claim 19 (withdrawn): The system of Claim 14, wherein the predetermined cut pattern comprises a plurality of edges of the integrated circuit package, wherein the integrated circuit package is formed on a polyimide strip.

Claim 20 (withdrawn): The system of Claim 14, wherein the predetermined cut pattern comprises a pattern through an interior portion of the integrated circuit package such that the interior portion is accessible for testing.